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EXAMINER

JONES III, CLYDE H

ART UNIT PAPER NUMBER

2623

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/025,920	<b>Applicant(s)</b> LEE, JIN SOO	
	<b>Examiner</b> Clyde H. Jones III	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/22/2002</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 6 is objected to because of the following informalities: On line 1 the consumption type recorder should be changed to --a consumption type recorder--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-7, and 13-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Inoue et al. (US 7,003,790 B1).

Regarding claims 1 and 14 Inoue teaches the method (and corresponding apparatus) for calculating audience rating using an interactive television, wherein the interactive television receives all kinds of contents (A/V data, games, TV programs, software, music) including broadcasting programs from a content provider, provides the contents to a user (col. 2, lines 11-14; col. 4, lines 12-17; col. 4, lines 29-35; col. 13, line 63-col. 14, line 5; col. 6, lines 56-60), saves the user's action information (selection

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history) on a designated content in a user history recorder (memory), and if necessary, transfers the user record information saved to the content provider (broadcaster enterprise 2/totalization center 8 – fig. 1) (col. 2, lines 24-28; col. 4, lines 37-50) , the method comprising:

(a) a first operating step of the interactive television that provides a user with all kinds of contents transferred from a content provider like a broadcasting company (col. 6, lines 56-60; col. 4, lines 29-36);

(b) a second operating step of the interactive television that stores consumption behavior record (selections/usage) information (col. 4, lines 37-39; col. 5, lines 30-32; fig. 7 & col. 9, lines 64-col. 10, lines 11; col. 10, lines 23-30) including information on a user's action (selection) on a specific content (program) and information on a relevant content (identification information, time information, channel information, etc.) in a user history recorder (memory) (col. 9, lines 20-27 & 57-61; col. 6, lines 6-15) ;

(c) a third operating step of the interactive television that transfers the consumption behavior record information stored in the user history recorder to the content provider every designated cycle (col. 10, lines 28-33; col. 9, lines 5-9; col. 4, lines 41-50; col. 2, lines 65-67); and

(d) an operating step of a specific content provider that analyzes the consumption behavior record information transferred from the interactive television, and calculates audience rating per section (time unit/sample) of a designated content (col. 9, lines 54-63; col. 2, lines 29-39; col. 3, lines 10-16; col. 17, lines 48-62).

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Regarding claim 3, Inoue teaches the user history recorder is a portable recorder like a smart card (IC card 21 – fig. 2) (col. 5, lines 30-33).

Regarding claim 4, Inoue teaches the user history recorder (21 or memory 23, 24, 25 – fig. 2) is installed in the interactive television (col. 6, lines 6-14; col. 5, lines 30-33).

Regarding claim 5, Inoue teaches the user history recorder further comprises a consumption (selection/use) type recorder for saving information on how a user consumes content (col. 5, lines 30-33; col. 9, lines 36-40 & 54-55), and a consumption behavior recorder for recording the consumption behavior of each section according to the user's action on each section (sample/time unit) while using a content (col. 5, line 54-col. 10, line 18; col. 17, lines 57-62; col. 3, lines 12-18).

Regarding claim 6, Inoue teaches a consumption type recorder comprises:  
a simple view record area for recording relevant information and frequency thereof, in case a user views a content one time (col. 9, lines 55-61; col. 9, lines 64-65 & col. 10, line 1;

a recording record area for recording relevant information and frequency thereof, in case the user records the content wishing to view the content again (col. 9, line 64-col. 10, line 3; col. 17, lines 35-47);

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a back-up saving record area for recording relevant information and frequency thereof, in case the content is saved in an external storage (VTR 153 – fig. 2) besides a receiver (col. 17, lines 35-47); and

at least one of transfer record areas for recording relevant information (transmission times and section history information) and frequency (counts of selections), in case the content is transferred to outside through network (col. 18, lines 8-18 & lines 23-26; col. 16, lines 1-6 & 16-20).

Regarding claim 7 Inoue teaches a storage record area for storing a content identifier to identify a relevant content (col. 9, lines 36-39 & 60-62; col. 17, lines 58-60).

Regarding claim 13, Inoue teaches user record information recorded in the user history recorder is transferred to the content provider if the content provider request the user record information (col. 15, lines 62 - col. 16, line 20).

Regarding claim 15, Inoue teaches step (d) is characterized of calculating (totalizing) the audience rating per section (time unit/sample) of the relevant content as the frequency of the action made in the relevant content increases (col. 10, lines 57-65; col. 9, lines 5-9 & 54-63; col. 2, lines 32-39; col. 17, lines 58-62; col. 17, lines 38-40).

Regarding claim 16, Inoue teaches the step (d) further comprises the steps of:

designating a first consumption behavior record (selection operation, e.g., purchase of a program) information among other consumption behavior record information currently being transferred from the interactive television as an object consumption behavior record information, and designating a first consumption behavior out of the designated object consumption behavior record information as a new action (identifies the selection/operation, e.g., program purchase action, from the sample data) (col. 9, line 54-col. 10, line 4; sample 166 – fig. 6 & the least significant bit – fig. 7B);

detecting a content ID (program information) and a section (time unit/sample) of the content where the new action is generated, and increasing a frequency of (counting) the action of the detected section (col. 9, lines 56-62);

repeating a procedure of designating the consumption behavior of the corresponding action as a new action if a next action exists in the object consumption behavior record information, a procedure of detecting a content ID and a section of the content where the new action is generated, and a procedure of increasing a frequency of an action on the detected section until a next action does not exist any more in the object consumption behavior record information (totalize/count the action for multiple samples/time units) (col. 9, lines 54-65; col. 10, lines 23-33; col. 3, lines 24-26; col. 2, lines 29-24); and

analyzing the entire content and attractiveness per section according to a user who is recorded in the object consumption behavior record information (col. 17, lines 57-62; col. 9, lines 5-9; col. 10, lines 28-33; col. 3, lines 24-28).

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Regarding claim 17, Inoue teaches the steps of:

deciding a presence of a next consumption behavior record information among other consumption behavior record information transferred, given that a next action does not exist in the object consumption behavior record information (analyzing another action, e.g., recording a program, after counting the purchase actions) (col. 10, lines 4-6; second least significant bit – fog. 7B; col. 10, lines 28-33);

repeating a procedure of designating relevant consumption behavior record information as an object consumption behavior record information, and a procedure of increasing a frequency of a relevant action by finding a section on which the action is made until a next action does not exist any more in the designed object consumption behavior record information, given that the next consumption behavior record information exists (col. 9, lines 54-65; col. 10, lines 23-27; col. 3, lines 24-26; col. 2, lines 29-34);

repeating the previous steps until a next consumption behavior record information does not exist among other transferred consumption behavior record information (count all identified action types in the sample data; col. 9, lines 40-42 & 49-52); and

analyzing audience rating, if the next consumption behavior record information does not exist, based on one of relevant content unit (e.g., channel; col. 9, lines 61-62 & col. 9, lines 17-19), time unit (program time; col. 9, lines 59-60 & col. 9, lines 17-19) or section unit (e.g., commercial or program section; col. 17, lines 56-62) by using



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information on the content and information on frequency of an action on a certain section of the content.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 7,003,790 B1) in view of Yoshinari (US 5,416,693).

Regarding claim 2, Inoue teaches the audience rating analyzer in the content provider is equipped for saving section (time unit/sample) information of a designated content per user (col. 2, lines 24-39; col. 3, lines 24-30; col. 9, lines 54-661; col. 4, lines 45-46; col. 9, lines 5-9), and in order to calculate the audience rating on every section of the content, the audience rating analyzer detects a section of the content where an action by the user is made when the user record information is transferred from the interactive television (col. 10, lines 24-31; col. 9, line 64-col. 10, line 18; col. 9, lines 15-19), and increases a frequency of the section among others (col. 17, lines 57-62; col. 17, lines 38-39; col. 10, lines 30-32).

However, Inoue fails to disclose with analytical tables.

In an analogous art, Yoshinari teaches with analytical (search) tables (fig. 3, 5, 7) for finding sections of maximum weight/interest (col. 6, lines 49-57; col. 7, lines 8-20; col. 6, lines 8-20)

It would be obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the system of Inoue to include the further limitation with analytical tables as taught by Yoshinari for the added advantage of increasing the preciseness of the rating system by finding areas of most interest (Yoshinari – col. 7, lines 16-20).

6. Claims 8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 7,003,790 B1) as applied to claim 5 above, and further in view of Yoshinari (US 5,416,693) and Goldshmidt Iki et al. (US 6,184,918 B1).

Regarding claim 8, Inoue teaches the consumption behavior recorder comprises:

- a skimmed record area for recording a section information on relevant action, in case the skimmed (partial viewing of content) action is made on the content (col. 17, lines 57-62);

- a skipped record area for recording a section information on relevant action, in case the skipped (viewing sections) action is made on the content (col. 17, lines 57-62);

- a replay record area for recording a section information on relevant action, in case the rewind (rewind and repeatedly play) action is made on the content (col. 17, lines 38-47);

Inoue further teaches obvious modifications can be made to add new acquisition information and further additional selection history information (col. 18, lines 28-30; col. 10, lines 19-22 & and the three most significant bits - fig. 7B; col. 17, lines 17-19).

Inoue fails to teach a normal finish record area for recording whether the user has view a content to the end at a normal speed;

a slowed record area for recording a section information on relevant action, in case the slowed action is made on the content; and

at least one of stopped record areas for recording a section information on relevant action, in case the stopped action is made on the content.

In an analogous art Yoshinari teaches a normal finish record area for recording whether the user has view a content at a normal speed (col. 4, lines 6-7);

a slowed record area for recording a section information on relevant action, in case the slowed action is made on the content (col. 3, lines 53-63; col. 4, lines 2-6 & 17-20; steps 24, 25 and 27 – fig. 2); and

at least one of stopped record areas for recording a section information on relevant action, in case the stopped (stationary) action is made on the content ( col. 3, lines 53-63; col. 4, lines 5-6 & 17-20; steps 24, 25 and 27 – fig. 2).

Yoshinari does this for the purpose of rating and weighting sections of interest based on operation actions (col. 6, lines 43-57).

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the system of Inoue to include a normal finish record area for recording whether the user has view a content at a normal speed; a slowed

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record area for recording a section information on relevant action, in case the slowed action is made on the content; and at least one of stopped record areas for recording a section information on relevant action, in case the stopped action is made on the content as taught by Yoshinari for the advantage of increasing the efficiency of qualitative analysis of samples by weighting actions of higher interest to the viewer (Yoshinari – col. 6, lines 53-57).

Inoue in view of Yoshinari fail to teach to the end.

In an analogous art Goldschmidt Iki teaches to the end (recognizing a user views a program in its entirety) (col. 5, lines 30-32), for the purpose of counting viewers watching an entire program (col. 6, lines 33-37).

It would have been obvious to of ordinary skill in the art at the time of the Applicant's invention to modify the system of Inoue and Yoshinari to include to the end as taught by Goldschmidt Iki for the advantage of including more detailed qualitative (demographic) analysis of viewer behavior (Goldschmidt Iki – col. 6, lines 34-37).

Regarding claim 11, Inoue in view of Yoshinari and Goldshmidt Iki teach the information recorded in the skimmed record area and the skipped record area is designated as record information with low attractiveness to a section of the designated content, while the information recorded in the replay record area and the slowed record area is designated as record information with high attractiveness to a section of the designated content (Yoshinari – col. 6, lines 49-57; in which lower weight/importance is given to faster than normal speed actions, e.g., skimming and skipping, and higher

weight/importance is given to slower than normal speed actions, e.g., normal playout and slow motion).

Regarding claim 12, Inoue in view of Yoshinari and Goldshmidt Iki teach a storage record area for storing a content identifier to identify a relevant content (Inoue – col. 9, lines 36-39 & 60-62; col. 17, lines 58-60; Goldshmidt Iki – col. 5, lines 22-23; col. 6, lines 11-13).

7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Yoshinari and Goldshmidt Iki as applied to claim 8 above, and further in view of Hoffberg et al. (US 7,006,881 B1).

Regarding claim 9, Inoue in view of Yoshinari and Goldshmidt Iki teach if the user views again the designated content he or she stopped viewing before and a latest stopped point information is again recorded in the stopped record area (in which Yoshinari teaches user playback operations on a program overlap start and stop points; col. 6, lines 43-57; and Goldshmidt teaches determining if an entire program is watched col. 6, lines 13-17; Yoshinari further teaches weighting the latest operation actions heavier; col. 7, lines 56-61; it would be obvious to record a latest stopped point for the advantage of providing more accurate and current data for the analysis of viewer behavior).

However, Inoue in view of Yoshinari and Goldshmidt Iki fail to disclose all previous stopped record information is deleted.

In an analogous art Hoffberg teaches all previous stopped record information is deleted (deleting previously encountered event/program information so that the program/event index is correct; col. 151, lines 36-46).

It would be obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the system of Inoue in view of Yoshinari and Goldshmidt Iki to include all previous stopped record information is deleted for the added advantage of increasing the quality of viewer analysis by providing maintenance of selection history to correctly represent user behavior (Hoffberg – col. 151, lines 44-46).

Regarding claim 10 Inoue in view of Yoshinari, Goldshmidt Iki, and Hoffberg teach if the user replays the designated content at an ending part of the designated content, the action is recorded in the normal finish record area (the user stops, rewinds and then replays a program to its end and the viewer selection history is updated to reflect the entire program has been watched; Inoue – col. 17, lines 38-40 & 43-47; Goldshmidt – col. 5, lines 30-37; col. 6, lines 13-17; it would have been obvious for the advantage of more accurately calculating overall viewer selection history).

8. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 7,003,790 B1).

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Regarding claim 18, Inoue teaches the consumption behavior information includes the user's age, and address, and the audience rating on the relevant content can be calculated being categorized into age, and area, respectively (col. 16, lines 42-47 & 60-63; col. 17, lines 4-6; col. 4, lines 45-46; col. 15, lines 11-22; col. 8, lines 54-59; col. 9, lines 36-40; col. 9, lines 55-62).

However Inoue fails to teach sex.

The Examiner takes Official notice that it is notoriously known in the art to use sex as demographic data for calculating the efficiency of programming, such as commercials, to attract males or females for demographic breakdowns of the audience for detailed market analysis.

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to include sex for the advantage of increasing the quality of viewer analysis for better marketing of programs and products.

Regarding claim 19, Inoue teaches the consumption behavior information includes the user's age, and address, the audience rating on each section (time unit/sample) of the relevant content can be calculated being categorized into age, and area, respectively (col. 16, lines 42-47 & 60-63; col. 17, lines 4-6; col. 4, lines 45-46; col. 15, lines 11-22; col. 8, lines 54-59; col. 9, lines 36-40; col. 9, lines 55-62 and col. 17, lines 57-62; col. 9, lines 54-57; col. 10, lines 24-32; col. 3, lines 12-18).

However Inoue fails to teach sex.

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The Examiner takes Official notice that it is notoriously known in the art to use sex as demographic data for calculating the efficiency of programming, such as commercials, to attract males or females for demographic breakdowns of the audience for detailed market analysis.

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to include sex for the advantage of increasing the quality of viewer analysis for better marketing of programs and products.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clyde H. Jones III whose telephone number is 571-272-5946. The examiner can normally be reached on 9-5:30 p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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CJ



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